AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A continuously variable transmission comprising a housing, a pair of axially spaced, radially floating cones rotatably arranged on a shared longitudinal axis of said housing, a pair of spaced apart countershafts relatively rotatable within said housing, said countershafts being mounted within said housing for limited, controlled movement therein, wherein each of said countershafts is adapted to be angularly pivoted within said housing and relative to one another, while axially translatable within said housing; each of said countershafts having defined first and second ends contained within said housing, wherein said first end of each countershaft has a greater diameter than said second end; said cones being positioned laterally intermediately between said countershafts; wherein the greater diameter first ends of said two countershafts are adapted to bear against and make rolling contact with one of said intermediately positioned cones, while said smaller diameter second ends of said two countershafts are adapted to bear against and make rolling contact with said second cone.

2. (Original) The continuously variable transmission of claim 1, wherein said cones have frustoconically shaped cross-sections and define large and small diameter ends; wherein said shared longitudinal axis passes symmetrically through said ends; and wherein said cones are positioned such that their small diameter ends are arranged to face one another along said axis.

3. (Original) The continuously variable transmission of claim 2, wherein said greater diameter ends of said countershafts comprise disks integrally formed with each countershaft via a forging process.

4. (Previously Presented) The continuously variable transmission of claim 1, wherein said first cone is a front transmission input cone, and wherein said second cone is a rear output cone; said cones having reversely oriented but otherwise identical frustoconical cross-sections, each of said cones comprising a conical surface, a major circular base, and a smaller minor circular base, wherein said cones are positioned along said longitudinal axis in a manner such that their smaller circle bases are positioned proximally to one another, while their larger major circle bases are opposed to one another and define spaced extremities of said cones.

5. (Original) The continuously variable transmission of claim 4, wherein each of said countershafts is adapted to be controllably moved both pivotally and translationally along separate but parallel axes for movement relative to said front input and rear output cones, and wherein the larger major circle bases of said cones are supported by and rotate on thrust bearings.

6. (Original) The continuously variable transmission of claim 5, wherein each of said countershafts includes a disk respectively, wherein each disk is rigidly secured to its respective shaft to define said first end of each countershaft having a greater diameter than said second smaller diameter end, and wherein each disk is adapted to controllably engage various axially extending portions of the conical surface of said front input cone so as to provide infinitely variable gearing ratios between lowest and highest CVT input-output ratios.

7. (Currently Amended) The continuously variable transmission of claim 6, wherein said countershafts are supported in trunnions for said pivotal and translational movements with respect to said housing, wherein said trunnions are coupled to ~~supported in~~ ball bearings rigidly secured to each countershaft, and wherein said ball bearings are supported for movement in spherical surfaces of bearing races ~~fixed to said housing~~.

8. (Original) The continuously variable transmission of claim 7, wherein said opposed second smaller diameter end of each of said countershafts is adapted to controllably engage various axially extending portions of the conical surface of said rear output cone so as to provide infinitely variable gearing ratios between lowest and highest CVT input-output ratios.

9. (Original) The continuously variable transmission of claim 8, wherein said spaced apart countershafts and said disks fixed thereto and adapted to pivot and move translationally along said longitudinal axis, are adapted to do so by means of software controlled axial movements of said trunnions, wherein said trunnions are thereby moved uniformly together both pivotally and translationally.

10. (Original) The continuously variable transmission of claim 9, further comprising an outer tube shaft supporting one of said cones rigidly secured thereto, and a stepped diameter

inner tube shaft supporting the second of said cones, wherein each respective tube shaft is supported on a plurality of spaced pilot bearings.

11. (Previously Presented) The continuously variable transmission of claim 1 wherein said transmission comprises at least three countershafts circumferentially arranged within said housing about said longitudinal axis of said cones.

12. (Original) A continuously variable transmission comprising a housing, a pair of axially spaced cones rotatably arranged on a shared longitudinal axis of said housing, and at least a pair of spaced apart countershafts relatively rotatable within said housing, said countershafts being mounted within said housing for limited, controlled movement therein, wherein each of said countershafts is adapted to be angularly pivoted within said housing and relative to one another, while axially translatable within said housing; each of said countershafts having defined first and second ends contained within said housing, wherein said first end of each countershaft has a greater diameter than said second end; said cones being positioned laterally intermediately between said countershafts; wherein the greater diameter first ends of said countershafts are adapted to bear against and make rolling contact with one of said intermediately positioned cones, while said smaller diameter second ends of said countershafts are adapted to bear against and make rolling contact with said second cone, wherein said transmission further comprises a tandem CVT arrangement having a third cone also sharing said longitudinal axis with said first and second cones, positioned intermediately of said first and second cones, and juxtaposed axially with the first cone through a set of spacer pilot bearings, and juxtaposed axially against said second cone through a second set of spacer pilot bearings.

13. (Previously Presented) A continuously variable transmission comprising a housing, a pair of axially spaced, radially floating cones rotatably arranged on a shared longitudinal axis of said housing, a pair of spaced apart countershafts relatively rotatable within said housing, said countershafts being mounted within said housing for limited, controlled movement therein, wherein each of said countershafts is adapted to be angularly pivoted within said housing and relative to one another, while axially translatable within said housing; each of said countershafts having defined first and second ends contained within said housing, wherein said first end of each countershaft has a greater diameter than said second end; said cones being

positioned laterally intermediately between said countershafts; wherein the greater diameter first ends of said two countershafts are adapted to bear against and make rolling contact with one of said intermediately positioned cones, while said smaller diameter second ends of said two countershafts are adapted to bear against and make rolling contact with said second cone.

14. (Original) The continuously variable transmission of claim 13, wherein said transmission comprises a front main transmission box of a combination main transmission box coupled via an inter-shaft to a separate deep reduction box.